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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/385,020	08/30/1999	SHUNPEI YAMAZAKI	0756-2023	8609

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EXAMINER

NGUYEN, KEVIN M

ART UNIT PAPER NUMBER

2629

DATE MAILED: 11/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/385,020

Applicant(s)

YAMAZAKI, SHUNPEI

Examiner

Kevin M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/29/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/29/2006 has been entered. An action on the RCE follows:

2. Claims 1-6 and 27-31 are cancelled, and claims 7, 11, 15, 19 and 23 are amended. Thus, claims 7-26 are currently pending in the application. The applicant's argument, see pages 8-11, with respect to the claims 7, 11, 15, 19 and 23 are not persuasive. The rejection based on newly cited prior art is maintained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-9, 11, 13-15, 17-19, 21-23, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pelka** (US 6,007,209) in view of **Bao et al** (US 6,266,108) hereinafter **Bao**.

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5. As to claims 7, 11, 15, 19 and 23, **Pelka** teaches an electronic device [a notebook computer], comprising:

a light source comprising 3-color light emitting diodes for producing three primary colors for additive color mixing *[figure 3 of Pelka teaches a related LCD device which includes the LEDs (12 and 13) are arranged so that the red, blue, and green light from the LEDs (12 and 13) is mixed together in a manner well known in the art to produce substantially white light. It will be appreciated by those skilled in the art that the number, special arrangement, and color arrangement of the LEDs (12 and 13) may be varied to suit apertures of various sizes (see col. 4, lines 27-51)]*;

a reflection plate [15] located adjacent to the liquid crystal panel [27] with the light emitting diodes [13] interposed therebetween, said light emitting diodes (12 and 13) and the reflection plate [15] arranged horizontally with respect to the liquid crystal panel [27] in col. 3, lines 27-64.

Accordingly, **Pelka** teaches all of the claimed limitations, except a reflection type liquid crystal panel comprising an active matrix substrate and a counter substrate, and a color filter adjacent to the counter substrate, wherein said active matrix substrate having a plurality of thin film transistors and a plurality of pixel electrodes connected with the thin film transistors, wherein white light emitted from the light source is introduced into said liquid crystal panel from sides of said counter substrate of said liquid crystal panel, wherein at least a part of the white light introduced to said counter substrate is reflected on the pixel electrode so as not to pass through the active matrix substrate.

However, **Bao** teaches a reflection type liquid crystal panel [0] comprising an active matrix substrate *[the panel is an active type]* and a counter substrate *[a light guide plate 20]*, and a color filter [150] adjacent to the counter substrate [20] , wherein said active matrix substrate having a plurality of thin film transistors [108] and a plurality of pixel electrodes [111] connected with the thin film transistors [108] [see fig. 4, see col. 9, lines 1-31 for details];

wherein white light emitted from the light source [30] is introduced into said liquid crystal panel [0] from sides of said counter substrate [20] of said liquid crystal panel [0], wherein at least a part of the white light *[at least one ray of illumination light]* introduced to said counter substrate [20], said light is reflected on the pixel electrode so as not to pass through the active matrix substrate *[the reflecting layer 109 is fragmented corresponding to the individual pixel electrode 111, such as the illumination light does not pass through the panel of an active matrix type 2, in figure 1, col. 6, lines 41-45, col. 8, lines 19-27, col. 9, lines 3-31 for details]*.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined **Bao** into **Pelka** to have created the claimed invention. It would have been obvious to have entered said at least one ray of illumination light from sides of said counter substrate (20) of Bao with the association white light of Pelka to reflect said light on the individual pixel electrode (111), such as the illumination light does not pass through the active matrix panel (2), *because this would improve the image being displayed in a dark environment while not spoiling the image quality in a bright environment (see Bao, col. 2, lines 38-42).*

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6. As to claim 8, **Bao** teaches the upper substrate has a plurality of inclined surface on a back of said counter substrate in figures 3A and 3B.

7. As to claims 9, 14, 18, 22 and 26, **Bao** teaches the notebook type computer (5).

8. As to claims 13, 17, 21 and 25, **Bao** teaches wherein said active matrix substrate and said counter substrate comprise glass substrate, respectively in col. 9, lines 1-6.

9. Claims 10, 12, 16, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pelka** and **Bao** as applied to claims 7, 11, 15, 19, 23 above, and further in view of **Nakamura et al** (US 6,124,911) hereinafter **Nakamura**.

The combination of **Pelka** and **Bao** teaches all of the claimed limitation, except wherein the pixel electrodes comprise metal material.

However, **Nakamura** teaches a related active matrix liquid crystal display device which includes the reflected pixel electrode (16) comprising a metal film in col. 7, lines 35-37.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of **Pelka** and **Bao** to become the metal pixel electrode as taught by **Nakamura** because this would improve the reflectivity of the front surface of the pixel electrode (see Nakamura, col. 7, lines 39-45).

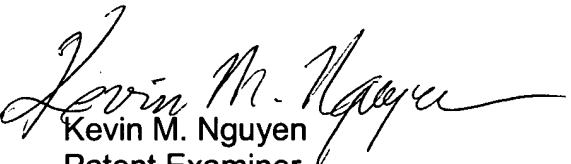
Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. NGUYEN whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 8:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, a supervisor RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8000.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the Patent Application Information Retrieval system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kevin M. Nguyen
Patent Examiner
Art Unit 2629

KMN
October 31, 2006